AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1 (currently amended). A method of handling a request from an application to an operating system to perform a file operation relative to a specific file, the method comprising the steps of:

receiving the request to perform the file operation, wherein the request to perform the file operation causes a file look-up operation;

attempting to perform the file look-up operation without suspending task execution ~~atomically~~ by retrieving a file path corresponding to the specific file from a file system namespace cache; [[and]]

notifying the application that the file operation could not be performed without suspending task execution ~~atomically~~ so that the application can redirect the request, if the file look-up operation could not be performed without suspending task execution ~~atomically~~ because the file path is not stored in the file system namespace cache[[.]]; and

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performing the file operation without suspending task execution if the file look-up operation could be performed without suspending task execution because the file path corresponding to the specific file is stored in the file system namespace cache.

2 (canceled).

3 (original). The method of claim 1 wherein the file system namespace cache is disposed within an operating system kernel.

4 (canceled).

5 (currently amended). A method of handling a request to an operating system to perform a file operation, the request being sent from an application to the operating system, wherein the operating system can notify the application if the file operation cannot be performed ~~atomically~~ without suspending task execution, the method comprising the steps of:

sending the request to the operating system, wherein the request causes the operating system to perform a file look-up operation;

receiving a notification from the operating system that the file operation cannot be performed ~~atomically~~ without suspending task execution if the file look-up operation cannot be performed without suspending task execution, the notification enabling the request to be redirected; and

redirecting the request to blocking point handling if the notification is received from the operating system that the file operation was not performed ~~atomically~~ without suspending task execution because the file look-up operation could not be performed without suspending task execution.

6 (currently amended). The method of claim 5 wherein the ~~redirecting of the request further comprises sending the request to~~ blocking point handling resides within a user space including the application.

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7 (currently amended). The method of claim 5 wherein the ~~redirecting of the request further comprises sending the request to~~ blocking point handling resides within a kernel for the operating system.

8 (currently amended). A computer program product having computer program code embodied therein, the computer program code for of handling a request from an application to an operating system to perform a file operation related to a specific file, the computer program code comprising:

instructions for receiving the request to perform the file operation, wherein the request to perform the file operation causes a file look-up operation;

instructions for determining if a file path corresponding to the specific file is stored in a file system namespace cache;

instructions for performing the file look-up operation ~~atomically~~ without suspending task execution if the file path corresponding to the specific file is stored in the file system namespace cache;

instructions for ~~notifying the application that the file operation was performed atomically~~ performing the file operation without suspending task execution if the file look-up operation could be performed without suspending task execution because the file path corresponding to the specific file is stored in the file system namespace cache; and

instructions for notifying the application that the file operation could not be performed without suspending task execution ~~atomically~~ so that the application can redirect the request, if the file look-up operation could not be performed without suspending task execution ~~atomically~~ because the file path is not stored in the file system namespace cache.

9 (original). The computer program product of claim 8 wherein the computer program code further comprises instructions for maintaining the file system namespace cache within an operating system kernel.

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10 (currently amended). A computer program product having computer program code embodied therein, the computer program code for handling a request to an operating system to perform a file operation relative to a specific file, the computer program code comprising:

instructions for sending the request to the operating system, wherein the request causes the operating system to perform a file look-up operation;

~~instructions for receiving a notification from the operation system that the file operation was performed atomically;~~

instructions for receiving a notification from the operating system that the file operation cannot be performed ~~atomically~~ without suspending task execution if the file look-up operation cannot be performed without suspending task execution, the notification enabling the request to be redirected;

instructions for using the specific file if ~~a notification that~~ the file operation was performed ~~atomically is received~~ without suspending task execution because the file look-up operation was performed without suspending task execution; and

instructions for redirecting the request to blocking point handling if [[a]] the notification ~~that the file operation could not be performed atomically is received~~ is received from the operating system that the file operation was not performed without suspending task execution because the file look-up operation could not be performed without suspending task execution.

11 (currently amended). The computer program product of claim 10 wherein the ~~instructions for the redirecting of the request further comprise instructions for sending the request to~~ blocking point handling resides within a user space including the application.

12 (currently amended). The computer program product of claim 10 wherein the ~~instructions for the redirecting of the request further comprise instructions for sending the request to~~ blocking point handling resides within the an operating system kernel.

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13 (currently amended). Apparatus for handling a request from an application to an operating system to perform a file operation relative to a specific file, the apparatus comprising:

means for receiving the request to perform the file operation, wherein the request to perform the file operation causes a file look-up operation;

means for determining if a file path corresponding to the specific file is stored in a file system namespace cache;

means for performing the file look-up operation ~~atomically~~ without suspending task execution if the file path corresponding to the specific file is stored in the file system namespace cache;

means for ~~notifying the application that the file operation was performed atomically~~ performing the file operation without suspending task execution if the file look-up operation could be performed without suspending task execution because the file path corresponding to the specific file is stored in the file system namespace cache; and means for notifying the application that the file operation ~~was~~ could not be performed without suspending task execution ~~atomically~~ so that the application can redirect the request, if the file look-up operation could not be performed without suspending task execution ~~atomically~~ because the file path is not stored in the file system namespace cache.

14 (currently amended). Apparatus for handling a request to an operating system to perform a file operation relative to a specific file, the apparatus comprising:

means for sending the request to the operating system, wherein the request causes the operating system to perform a file look-up operation;

~~means for receiving a notification from the operation system that the file operation was performed atomically;~~

means for receiving a notification from the operating system that the file operation cannot be performed ~~atomically~~ without suspending task execution if the file look-up operation cannot be performed without suspending task execution, the notification enabling the request to be redirected;

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means for using the specific file if ~~a notification that~~ the file operation was performed ~~atomically is received~~ without suspending task execution because the file look-up operation was performed without suspending task execution; and

means for redirecting the request to blocking point handling if [[a]] the notification ~~that the file operation could not be performed atomically is received~~ is received from the operating system that the file operation was not performed without suspending task execution because the file look-up operation could not be performed without suspending task execution.

15 (currently amended). An operating system comprising:

a file system including a file system namespace; and

an operating system kernel operatively connected to the file system, the operating system kernel operative to enable ~~the~~ task execution ~~of~~ for at least one application, the operating system kernel further comprising:

a file system namespace cache for caching file paths from the file system namespace; and

a~~n atomic~~ file look-up operation operable to determine if a specific file path corresponding to a specific file is stored in the file system namespace cache and to selectively enable performance of a file operation relative to the specific file without suspending task execution and notify the at least one application when the ~~whether a~~ file operation relative to the specific file is not being performed~~ atomically~~ without suspending task execution based on ~~whether~~ the file look-up operation not being performed without suspending task execution because the specific file path is not stored in the file system namespace cache so that the at least one application can redirect a request to perform the file operation.

16 (original). The operating system of claim 15 wherein the at least one application resides and executes within a user space that is operatively connected to the operating system kernel and the file system namespace.

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17 (original). The operating system of claim 15 wherein the at least one application resides and executes within the operating system kernel.

18 (currently amended). The operating system of claim 15 wherein the operating system kernel further comprises blocking point handling which can be invoked if and when the file ~~opration~~ operation cannot be performed~~ atomically~~ without suspending task execution.

19 (currently amended). The operating system of claim 16 wherein the operating system kernel further comprises blocking point handling which can be invoked if and when the file operation cannot be performed~~ atomically~~ without suspending task execution.

20 (currently amended). The operating system of claim 17 wherein the operating system kernel further comprises blocking point handling which can be invoked if and when the file operation cannot be performed~~ atomically~~ without suspending task execution.

21 (currently amended). The operating system of claim 16 wherein the user space further comprises blocking point handling which can be invoked if and when the file operation cannot be performed ~~atomically~~ without suspending task execution.

22 (currently amended). The operating system of claim 16 wherein the operating system kernel and the user space further comprise blocking point handling which can be invoked if and when the file operation cannot be performed ~~atomically~~ without suspending task execution.

23 (currently amended). An instruction execution system operable to handle a request from an application to an operating system to perform a file operation relative to a specific file by performing the steps of:

sending the request to perform the file operation from the application to the operating system wherein the request causes the operating system to perform a file look-up operation;

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attempting to perform the file look-up operation without suspending task execution ~~atomically~~ by, at least in part, determining if a file path corresponding to the specific file is stored in a file system namespace cache;

notifying the application that the file ~~oepration~~ operation could not be performed without suspending task execution ~~atomically~~ so that the application can appropriately redirect the request, if the file look-up operation could not be performed without suspending task execution because the file path is not stored in the file system namespace cache;

redirecting the request if the file operation was not performed without suspending task execution ~~atomically~~ because the ~~path is not stored in the file system namespace cache~~ file look-up operation could not be performed without suspending task execution.

24 (original). The instruction execution system of claim 23 wherein the file system namespace cache is disposed within an operating system kernel.

25 (original). The instruction execution system of claim 23 wherein the redirecting of the request further comprises sending the request to blocking point handling within a user space including the application.

26 (original). The instruction execution system of claim 23 wherein the redirecting of the request further comprises sending the request to blocking point handling within a kernel of the operating system.

27 (original). The instruction execution system of claim 24 wherein the redirecting of the request further comprises sending the request to blocking point handling within a user space including the application.

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28 (original). The instruction execution system of claim 24 wherein the redirecting of the request further comprises sending the request to blocking point handling within a kernel of the operating system.